

THAT WHICH IS CLAIMED:

1. A bearing or drive assembly, comprising:  
at least two elements that are adapted for movement relative to each other,  
5 wherein:  
the at least two elements are selected from the group consisting of  
bearing elements and drive elements, and  
at least one element of the at least two elements includes a carrier  
material and a polyimide coating on the carrier material.
- 10 2. An assembly according to claim 1, wherein the polyimide coating is  
very thin in comparison with a dimension of the carrier material.
3. An assembly according to claim 1, wherein the at least one element  
further includes a passivation coating that is on the carrier material at a position below  
the polyimide coating.
- 15 4. An assembly according to claim 3, wherein the at least one element  
further includes a pressure-resistant coating that is on the passivation coating, and the  
pressure-resistant coating is positioned:  
below the polyimide coating, or  
in the polyimide coating, or  
20 below and in the polyimide coating.
5. An assembly according to claim 1, wherein:  
the assembly is a bearing, and  
the at least one element is a ring or a rolling body of the bearing.
6. An assembly according to claim 1, wherein the polyimide coating is a  
25 permanent lubricant.
7. An assembly according to claim 2, wherein the at least one element  
further includes a passivation coating that is on the carrier material at a position below  
the polyimide coating.

8. An assembly according to claim 7, wherein the at least one element further includes a pressure-resistant coating that is on the passivation coating, and the pressure-resistant coating is positioned:

5 below the polyimide coating, or  
in the polyimide coating, or  
below and in the polyimide coating.

9. An assembly according to claim 2, wherein:  
the assembly is a bearing, and  
the at least one element is a ring or a rolling body of the bearing.

10 10 An assembly according to claim 3, wherein:  
the assembly is a bearing, and  
the at least one element is a ring or a rolling body of the bearing.

11. An assembly according to claim 4, wherein:  
the assembly is a bearing, and  
15 the at least one element is a ring or a rolling body of the bearing.

12. A method of producing a bearing or drive assembly having at least two elements that are adapted for movement relative to each other, wherein the at least two elements are selected from the group consisting of bearing elements and drive elements, and at least one element of the at least two elements includes a carrier  
20 material, with the method comprising:

applying a polyimide coating on the carrier material, with the applying of the polyimide coating including immersing the at least one element into a prepolymer solution.

13. A method according to claim 12, wherein:  
25 the immersing of the at least one element into the prepolymer solution is carried out so that the at least one element is coated with a polyimide film, and  
the applying of the polyimide coating further includes transforming the polyimide film into the polyimide coating, and the transforming of the polyimide film into the polyimide coating includes tempering the at least one element.

14. A method according to claim 12, further comprising adding an additive to the prepolymer solution for improving frictional properties of the polyimide coating.

5 15. A method according to claim 14, wherein the additive includes a lubricant.

16. A method according to claim 13, further comprising adding an additive to the prepolymer solution for improving frictional properties of the polyimide coating.

10 17. A method according to claim 12, further comprising applying a passivation coating on the carrier material at a position below the polyimide coating.

18. A method according to claim 17, further comprising applying a pressure-resistant coating on the passivation coating so that the pressure-resistant coating is positioned:

15 below the polyimide coating, or  
in the polyimide coating, or  
below and in the polyimide coating.

19. A method according to claim 12, wherein:  
the assembly is a bearing, and  
the at least one element is a ring or a rolling body of the bearing.

20 20. A method according to claim 19, further comprising operating the bearing, with the operating of the bearing being characterized by the polyimide coating functioning as a permanent lubricant.